

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended) A method of practicing precision farming wherein at least one agricultural operation is to be conducted with respect to a predetermined agricultural field, comprising the steps of:

a) providing an air breathing, self-powered miniature aircraft weighing less than fifty-five pounds and having image acquisition apparatus comprising at least one of the types: visible light camera, thermal (e.g., infrared) image acquisition apparatus, synthetic aperture radar, and laser radar carried thereaboard said aircraft further comprising at least one sensor selected from the group: a barometric altitude sensor, an airspeed sensor, and a roll and pitch sensor, said sensor being operatively connected to a microprocessor disposed on board said miniature aircraft, said microprocessor being adapted to facilitate automatic control of at least pitch and roll of said miniature aircraft;

b) flying said miniature aircraft along a flight path controlled at least in part remotely therefrom;

c) surveying the agricultural field by acquiring at least one image of the agricultural field from the image acquisition apparatus;

d) analyzing the at least one image obtained in said step of surveying the agricultural field to determine at least one local condition of the agricultural field and at least one requirement of the agricultural field relative to an agricultural operation; and

e) conducting the agricultural operation with respect to the agricultural field in a manner corresponding to the at least one requirement of the agricultural field as determined in said step of analyzing the at least one image.

Claim 2. (original) The method according to claim 1, wherein said step of conducting an agricultural operation comprises the further step of applying at least one agricultural resource to the agricultural field according to at least one requirement determined in said step of analyzing the at least one image.

Claim 3. (previously presented) The method according to claim 1, wherein said step of surveying the agricultural field comprises the further step of causing the aircraft to gain altitude under said aircraft's own power.

Claim 4. (original) The method according to claim 3, wherein said step of surveying the agricultural field comprises the further step of launching the aircraft from the ground.

Claim 5. (previously presented) The method according to claim 1, comprising the further step of launching the aircraft entirely under said aircraft's own power.

Claim 6. (currently amended) The method according to claim 1, wherein said surveying step (c) of surveying the agricultural field comprises the further step of controlling the flight path remotely from said miniature aircraft such that the entire agricultural field being surveyed is overflown in a single flight.

Claim 7. (currently amended) The method according to claim 6, wherein said step of controlling the flight path of the aircraft remotely therefrom comprises the further step of causing the aircraft to fly in a sweeping pattern wherein flight of the aircraft is controlled to include at least a first turn in one direction when overflying the agricultural field and a second turn in an opposed direction when overflying the agricultural field.

Claim 8. (canceled)

Claim 9. (currently amended) The method according to claim ~~8~~ 1, further comprising the ~~further~~ steps of:

f) providing a radio frequency receiver disposed to communicate with a Global Positioning System, wherein the radio frequency receiver is disposed in communication with the microprocessor, and

g) utilizing location signals from the Global Positioning System to control at least partially the flight path of the aircraft.

Claim 10. (currently amended) The method according to claim 9, comprising the further step of providing a redundant navigation system complementing location determination provided by said ~~step of~~ utilizing location signals ~~from the Global Positioning System~~ step (g).

Claim 11. (cancelled)

Claim 12. (currently amended) The method according to claim 1, wherein said ~~step of~~ surveying the ~~agricultural field~~ step (c) comprises the further step of conducting plural complementing flights over the agricultural field being surveyed.

Claim 13. (currently amended) The method according to claim 12, wherein said further step of conducting plural complementing flights further comprises the ~~further~~ step of utilizing at least one additional miniature aircraft.

Claim 14. (currently amended) The method according to claim ~~12~~ 1, wherein said flying step (b) ~~of controlling the flight path of the aircraft~~ comprises the further step of causing the aircraft to fly in a sweeping pattern wherein flight of the aircraft is controlled to include at least a first turn in one direction when overflying the agricultural field and a second turn in an opposed direction when overflying the agricultural field.

Claims 15 - 18 (cancelled)

Claim 19. (currently amended) The method according to claim 1, ~~comprising the further step of causing the aircraft to fly under control to a~~ wherein said flying step (b) comprises flying said miniature aircraft to a predetermined location after overflying the agricultural field being surveyed.

Claim 20. (currently amended) The method according to claim 1, ~~comprising the further step of causing the~~ wherein said flying step (b) comprises flying said miniature aircraft to fly under control to a location outside of the agricultural field being surveyed.

Claim 21. (currently amended) The method according to claim 1, ~~comprising the further step of causing the aircraft to fly under control~~ wherein said flying step (b) comprises flying said miniature to a location proximate said aircraft's launch location.

Claim 22. (currently amended) The method according to claim 1, wherein said ~~step of surveying the agricultural field~~ step (c) comprises the further step of acquiring a plurality of images selected from the group: multispectral images, hyperspectral images, and ultraspectral images of the agricultural field from the aircraft.

Claims 23 - 27 (cancelled)